

the

Ampeer

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Ampeer subscriptions are \$10 a year US & Canada and \$17 a year world wide.	The Next Meeting: Date: Sunday, Aug. 11 Time: 10:00 a.m. Place: Midwest R/C Society field on 5 Mi. Rd.	

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Goldberg 550 Motor

From: Glenn Campbell gcampbel@one.net

Ken,

I had printed off your "recommendations for electric powered flight" and had skimmed through it then kind of put it aside. I had in the back of my mind to go through it closer especially because you had used the Goldberg 550 motor as an example. Well, I finally ran across it again and looked at it more closely.

What really caught my interest was the motor data for the Turbo 550. I had checked mine using a drill press for the Kv. I had calibrated the drill press by mounting a prop in the chuck and measuring the RPMs with a digital tach. I got a Kv of 2528 just like MotoCalc. I'm using an Astro Watt meter Was 1.5 and figured Ra was 0.733. These figures were all very close to MotoCalc. Now I'm not sure how accurate the Ra is considering I didn't use a video and the figures change so quickly as I juggle temperature, amps and volts, but I don't think it's off enough to make a big difference.

What's even more interesting is that my motor performs closer to what you would expect it to for these figures. The is no way

it would last very long on 7 cells with an 8x4 prop. If I remember properly, it was around 30 amps! I put a Master Airscrew 2.5 gearbox on it and pulled up the tabs on the back of the motor and turned the brush plate to retime it, so I had very little arcing on the brushes with the motor running backwards. It pulls between 26 and 27 amps on a fresh charge then settles back to about 24 with a Top Flight 11x8 prop. I did not recheck the motor data after retiming and adding the gearbox. It takes off with a hint of authority and flies as you would expect for an estimated 43 watts per lb. output. I only use the full power for take off and power moves, so the motor handles the amps well. With the 7 RC2000 cells I have flown as long as 17 minutes, but normal flight times are from 8 to 10 minutes.

Ok, so hear is my 2 cents worth. If we assume that neither MotoCalc, Bob Kopski or you are making any large errors, then there is only one other answer to this problem. Goldberg has used 2 or 3 different wound motors.

This wouldn't surprise me, as this kit was brought out relatively early in commercial electric flying history and the whole idea of 6 cells and direct drive was unrealistic. I just think that perhaps they were not sophisticated

enough to know the difference and maybe really didn't know how to specify what motor parameters were suitable. Who knows?!

What do you think?

I think that there has more than likely been more than one Goldberg Turbo 550 motor. When I've mentioned this motor, it has only been mentioned because someone may have acquired one, and it's a shame to just have something setting around unused. I've mentioned using it with a belt-drive or using a reversed pitch prop on a gearbox, as these are easier for the newcomer to electric to do. Changing the timing is the "best" way to do it, just as you did.

My overall recommendation is to use it with a belt-drive on 8 to 10 cells and at about a 25 ampish draw, it then becomes a useful and "relatively" efficient cheap (read that free) motor. It can then provide an output of about 130 to 165 watts to power 2.5 lb. (40 oz.) to 3.5 lb. (56 oz.).

How to Get Your Club's Newsletter Online

By Ken Myers

There are many advantages to putting your club's newsletter online. The biggest is the reduction in cost to the club over sending a paper copy to everyone in the club. It also provides a great archive for club information and provides a place where "outsiders" can learn about what your club has to offer.

If you have a club newsletter, you have a way to publish it to paper. If you use Microsoft products such as Word or Publisher, they have the ability to create an HTML document from your paper document. All of the files created with the HTML document can be moved to a server on the Web. The server is run by a Web hosting service. More on this later.

A better way to post your club newsletter is to use a program called Adobe Acrobat Exchange. Don't confuse this with the Free Acrobat Reader. The reader is the program designed to read the files created by Acrobat Exchange. Acrobat Exchange is not cheap. If you have a student in your club or family, you can purchase it at a student discount. Another way to get your original document into Acrobat PDF format, and the best part is that it is FREE, is to send it to me. I'll put it into PDF format and send it back to you, ready to post to your Web site.

Once you have your information ready to post to the Web, you'll need a host. Some clubs already have folks with Web hosts available, while others need to get a service. If you, the newsletter editor, have an ISP

(Internet Service Provider; i.e. Compuserve, AOL, Earthlink, etc.), you already have at least 2 Mb of free Web space. Also, there are two FREE services still available; YahooGeocities (<http://geocities.yahoo.com/home>) and Tripod (<http://www.tripod.lycos.com/>). Both allow you to make up your homepage right online, with links to your newsletter and other pages on your club site. You don't have to make up your homepage online, but if you have no experience, this is the easiest way to do it.

You'll have an odd address, like the Ampeer does, since it is "hosted" on AOL. The address looks like this: <http://member.aol.com/kmyersefo/> or I have the Midwest R/C Society site at: <http://www.geocities.com/kmyersmidwest/>, but you are not stuck with that. A Midwest member bought www.midwestrcsociety.org and there is a pointer on the Web that sends anyone using www.midwestrcsociety.org to the geocities address. While this is a bit advanced, I just wanted you to know that it can be done.

Put up a site on one of these free sites. Play with it. Learn to use it. Post your club's information to it. When it's ready, advertise it to your members and the world, and let your members get their information there.

I recommend that you don't get fancy. Remember to KISS this project. Your club members only want the information, not a lot of flash (or FLASH), bells and whistles. Please, NO MUSIC! ;-)

Pond's Plan Service NEW address

From: Ron Fikes srfikes@earthlink.net

Just got word that John Pond's Plans Service has been re-located. The new address is: P. O. Box 1492, Marysville, Washington 98270. Phone 1-360-653-8875. The service is being operated by John's grandson, Kevin. Kevin has a new, updated catalog with all plans listed in it for \$10.

SR Batteries, Inc. – Bantam News

From: FYI E-Newsletter fyisub@srbatteries.com

The Bantams are officially released! Many of you wanted more detailed information about the Bantam kits, and I'm happy to tell you that I just finished the Bantam section of our web site. Here's a link that will take you right to the Bantam section...

<http://www.srbatteries.com/bantam.htm>

As always, please drop us a note if you have any questions.

Watch for reviews of these kits soon. KM

New Supplier of GWS

From: Ron Fikes srfikes@earthlink.net

Ken,

Thanks for the continued notice of your newsletter - can I send pictures, stories and tips for your site? How?

(Ron, and anyone else, you can send any information that you'd like to share to me at KMyersEFO@aol.com or by sending it through the postal service to my address on the front of the Ampeer. It is always very much appreciated.)

Also, there is a new supplier of GWS (and other liteflite supplies). I'll toot his horn? You can find him on the Web at: <http://www.aeromicro.com/>

Perry Lee is a flyer at our field (SF Bay area, California) and has a great policy - if he receives your order by 3 p.m. (our time), he ships the order that day! Check out his site (he will make up GWS flight packs, custom, and at great prices).

Innocence Lost, Altitude Gained***Metamorphosis of the XB-70 Bomber***

From: Grant Calkins CalkinsOp@worldnet.att.net

"It just didn't gain enough altitude!" Said Ray Cannon, builder of a beautiful 8 ft long XB-70 model with four electric ducted fans powered by 24 cells earlier in 2002. Tony Frakowiak, test pilot of the model at the flying field of Edwards AFB agreed. "Plus, the da*n thing won't turn left - I had to circle behind the parked cars just to get her back to the landing area." True enough, this was a Republican airplane all right - it refused to turn (yaw) to the left no matter how much left roll you gave it. Possibly an adverse yaw or maybe slight wing warp.

"Didn't this thing use to be electric?"

OK, OK the 13 lb. beast was under-powered! Deltas



need angle of attack to rise, and that in turn leads to large drag forces. Even though it's wing loading was under 20, it was a sluggish flyer. But it *did fly* - twice actually - as an EDF. The proof is on video, right turns and all.

Ray spent nearly a year building the model and coaxing every last oz. of thrust from her four EDF's, but alas she was spiraling toward a punishing and demeaning metamorphosis. She was to be become a turbine!

The UK built Wren turbine kit was installed, fueled, powered, cooled, controlled, TCU'ed, etc etc. like all wet power plants have to be. Lots more thrust now - about 12 pounds - and at the trivial cost of only 5 pounds of additional weight! The beast was now a solid 18 lb. But a new and important feature was added, rudders. No more Republican aviation around here, she can actually turn left now.

Two abortive trips to Edwards AFB in early 2002 produced: 1. Couldn't get the turbine started. 2. Too windy to fly even an 18 lb. plane. Finally on May 13, at 4:30 a.m., the XB-70 "team" leaves for the Edwards AFB site for the fateful flight. (One member of the team only got in at 12:30 a.m. the night before - must have been an ex RAF Hunter pilot returning early from a party!)

We arrived at 6:30 a.m. and begin to set up. Ray fueled the plane and checked the batteries. The other member - no help at all - flew his \$59 Foxbat electric pusher in the clear cool air of the California high desert.

Tony the pilot arrived, and was concerned that a past minor fuel leak might allow an air bubble and lead to an early flame out. Oh well, it was running well now, so we gave her the mother of all range tests. Da*n near drained the entire fuel tank testing "engine on" while rotating the plane 90 degrees at a time and testing the controls. Can't be too careful with turbines. Next the high-speed taxi runs and then top off fuel again.

With no further reasons not to, Tony taxied the beast out on the runway, pointed the nose into the (non) wind, and opened the throttle.



The XB-70 roared down the runway and leaped skyward under the thrust of a screaming turbine. It was off and it was flying beautifully, and - yes - it even turned left! Two more race track patterns at about 100 feet and Tony had her trimmed perfectly, just in time for the flame out!

At about the two-minute mark, puff, white smoke out the exhaust, then a noticeable silence. With perfect coolness born of hundreds of jet flights as well as on the USA Aerobatics National team, Tony did *not* attempt to make a 180 and land on the normal part of the field. He maintained the same heading and simply put her down on a distant part of the field. A long ways away, even my 12x zoom on the video camera made it look like an ant way out there. *Thus the reason we insist on using the Edwards AFB model field with its two mile long flying surface for maiden flights.* Only slight damage to the main gear was the fortunate result, except for 3/4 of the fuel still remaining.

Ray drove the car to retrieve the plane. Grant filled the sky with more electric Foxbat, and Tony fired up his Bandit, a beautiful 200+ mph jet he flies like it was a smooth stable trainer. Nothing to do now but load up and drive to the Skillet in nearby Rosamond.

So long for now,

Grant Calkins; tag along team member, author, and photographic documentarian
Ray Cannon, XB-70 builder and aeronautical architect extraordinaire.
Members of: Channel Islands Condors, Camarillo, California, and Muroc Model Masters at Edwards AFB California.



New S400 TONY

From: Mark Rittinger mrittinger70@hotmail.com

Ken,

Here's a picture of my new toy, designed specifically to counter the allied invasion of the Epower flying fields by Jim's (*Jim Ryan*) Naval fighters!

The Ki 61 was originally drawn in Magnetic Mayhem Geared 10 cell 42" span, but I shrunk it down to 30" to chase Jim's stuff around at Mid-Am this year. The aircraft weighs about 16.5 ounces with a 6 volt 400,4.75 prop, and 8-600AE cells. Wing area is about 170 or so. Foam wing and wood fuse. Covering is dulled Chrome Monokote a-la the Jug of last year's Mid-Am. All trim was done with Sticky Trim material. I know, the meatballs on the wing are too big. A concession to my terrible vision of late. I must say, it goes like stink, and is pretty stable. Ailerons and elevator are scale. Very little elevator throw is needed, and the ailerons are perfect.

It will be featured in S and E Modeler this summer as a construction article. Plans will be available from them.



My Models

From: Barry Wilson Jbarry.Wilson@btinternet.com

Hi,

My name is Barry Wilson. I live in a small village in the South of England, (UK). I have recently converted to

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Ken Myers
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Electric Flight to keep me flying when, (so very often here!), the weather prevents me from Slope Soaring.

I guess I am probably of the same generation as yourself in that I started modelling in the 50's too, then after many years returned to the hobby about 6 years ago.

I invariably design my own models, which vary from sailplanes up to 11 ft 6 inch wingspan, to small electric "parkfly" models.

I have attached photos of two of my gliders, (that's my daughter and wife assisting!). If you are interested I will send pictures of my electric model later.

Thanks Barry, photos and details would be great!

KM

To Fly or Not to Fly... Another Version

From: Robert Ferrante robertf@autopkg.com

Ken:

I just read the article by Frank Korman titled "To Fly or Not to Fly OR Lightning Never Strikes Twice." I too have had some lightning problems, only of a more severe nature than what Frank had. On May 1 my house was struck by lightning, causing almost two thousand dollars worth of damage. It seemed as if anything electronic in my house that was on one of 3 circuits got clobbered. It was not until the following Saturday night that I realized my Futaba radio had been taken out by the lightning strike. Here is what happened.

I had my trusty 2 year old radio on the charge after I had been out flying that Wednesday afternoon. During the night a thunderstorm rolled through. At 3:23 A.M. we got hit with a side strike from the utility pole in front of our house. Anything that was on a surge suppressor was spared. Most of my radio equipment is on a surge protected power strip. But the Futaba, since it needed a full charge before I put it on trickle charge via the power

strip, was plugged directly into the wall.

The following day while going through the house to check each piece of equipment I checked the Futaba radio. All I did was look at the LEDs on the charger. They were both lit up. I thought the radio would be fine. I then put the radio on the trickle charger power strip.

Saturday came along and I wanted to fly the next day. I needed a minor adjustment to my plane. That is when I discovered the radio was dead.

The Insurance company wanted me to get the unit repaired. The repair station I use said he would not trust the radio in the air. The only way he would fix it and warranty the work was to replace the entire PCB. Otherwise anything else that was in the system could fail at a later time, and cause a safety problem. The repair cost exceeded the replacement cost. So the insurance agreed to replace the radio.

Here is when I learned something about insurance companies. They regard our hobby as toys, and will downgrade them at a faster rate than the other items in my house. They gave me only 50% of the value of the replacement cost of the radio, that includes the sale price I am purchasing the replacement radio under. Fortunately my insurance does have a replacement value written into the policy. So I will get it replaced at full cost, but I do have to put up front the other half of the cost. Some insurance policies may not have that "replacement value" written into the policy. Check your insurance policy for replacement value of your hobby equipment.

Also please charge through a surge suppressor to protect your radios. You don't want to watch a great flying day go by like I had to.

What is Motor Noise?

By Ken Myers

The common electric flier term "Motor Noise" does not refer to the sound made by the motor and prop. The term "Motor Noise" refers to the radio frequency (RF) emitted by a spinning brushed motor. This can cause problems with the nearby radio receiver in an R/C plane. To help suppress this RF, emitted by the spinning motor, three capacitors are attached to the motor. One capacitor goes across the motor terminals and there is a capacitor from each terminal to the motor case. The value that I use is 0.01 MFD at 50WVDC. It is Radio Shack part number: 272-1065. I use the three on all brushed motors. Supposedly, some brushed motors come with internal capacitors, but I still add them to all of my brushed motors.

Charge Rates for NiCads and NiMH Batteries

By Ken Myers

If you do not have one of the “fancy”, new, totally automatic peak chargers, you may have to select the charge rate for the cells making up your battery.

To understand what charge rate to use, you need to know the capacity of the cells in your pack. That should be listed on the individual cell or the battery. The term “C” means the cell capacity. The term “1/10C” means the “C” divided by 10. The term “3C” would mean 3 times the capacity. The following are the charge rates I set for use with my charger that only has a 5 amp maximum charge rate.

Fast Charge Rate

4C (or 5 amps if 4C can't be set because it is higher than 5 amps) – **NiCads** with a diameter of 23 mm (about 0.9 in.) or greater

3C – **NiCads** with a diameter of less than 23 mm

2C – **NiMH**

Overnight Charge Rate

1/10C – both NiCads and NiMH for first charge or equalizing.

Other types of batteries require special chargers. Follow the directions with the special cells and special chargers.

Flight Times for Electrically Powered Planes

By Ken Myers

One of the biggest knocks on using electric power for R/C airplanes is the flight time. With the technology and choices of batteries today, this is not a major issue.

Although it has been said many times, it's worth repeating, the average glow powered R/C flight lasts about 8 minutes. Of course “sky hogs” fly much longer, as well as typical glow training flights.

Electric assist gliders and old-timer types have been flying more than double that time for a long, long time. Many of today's park and slo-fliers easily surpass the eight minute mark with “stock” systems. Small, light electrically powered aircraft with Li-ion batteries seem to fly forever.

It has been my goal to have “sport” planes that easily make the 8-minute mark. It has been exceptionally easy to achieve. My most flown

planes, the TigerShark, X-250 and Lightning E-250 all fly fully aerobically for over 8 minutes, with minimal throttle management.

The TigerShark uses 10 RC1700 cells running through an Astro Flight 035 geared 2.82:1 and swinging a 10x6 prop. The static amp draw is about 27 amps. This would indicate a motor run time on the ground of about $1.7 \text{ Ah} * 60 = 102$ amp minutes / 27 amps = 3.78 minutes. With the unloading of the prop in the air and a bit of throttle management 8 minutes plus is the norm. The X-250 uses 7 2000 NiMH cells, a Multiplex Turbo 450 direct drive and APC 7x4 prop pulling about 18 amps static. $2 \text{ Ah} * 60 = 120$ amp minutes / 18 = 6.67 minutes. Flight times for this plane are close to 11 minutes. That's about 1.65 times the static battery run on the ground. The Lightning E-250 uses 6 RC2000 cells on a direct drive AF035 spinning an APC 7x4 prop. Static amp draw is about 28 amps. $2 \text{ Ah} * 60 = 120$ amp minutes / 28 = 4.29 minutes. Airtime is always over 8 minutes, or once again about double the static run time.

I should note that I've never done a “full” static run time, as the motor and ESC could well overheat, but the static run times are given for what would be expected.

To estimate your flying time for sport and sport scale airplanes, you can multiply by 1.5 up through 2, and your estimate should be very close. The better you get, the closer to double your static run time you can use. I use 2 all of the time, and with a bit of practice, so can you, and you'll find your mark, easy to hit.

A Book Review

GETTING STARTED IN BACKYARD FLYING

Your Guide to small electric radio-control planes

By Bob Aberle

Review by Ken Myers

Bob's follow up book to Clean & Quiet puts all of the really important and basic information about small electric R/C planes into one handy reference. Bob's easy and clear style of writing, developed over his many years as an author and editor for leading modelling publications, leads the reader through the various aspects of Ultra Micro, Sub Micro, Micro, Parking Lot/ Backyard Flyer and Speed 400 R/C flying. While the

emphasis is on electric power, other types of power systems are included, with information on possible future power systems.

The contents of the book include:

Electric Motor Systems
 Propellers
 Electronic Speed Controls
 Batteries & Chargers
 Connectors, Wires & Soldering
 Measuring Motor Parameters
 Sizing Motor Systems to Your Aircraft
 RC Systems
 System Installation Control & Hookup
 Choosing Your Aircraft
 Let's Put it All Together (3 specific examples)
 Flying
 Competition Flying
 Organizations
 Publications, Internet & Electric Flys
 What's Next
 Modeling Terminology
 Source Guide

The listing only gives a glimpse as to the material covered in this book. The book is profusely illustrated with useful photos and diagrams.

Since I am not "into" these types of planes, the information was somewhat new to me, and yet every aspect was clearly explained. I'm really glad that I had a chance to read it, as I have two SR Bantam's setting in the basement awaiting their turn on the building board. Thanks to the clear and concise information that has been provided by Bob, instead of it being a leap for me to enter the realm of the small ones, it will only be a small step. Thanks Bob!

The book is published by Air Age Inc., 100 East Ridge, Ridgefield, CT 06877-4606. Air Age also publishes Model Airplane News and Backyard Flyer. The ISBN is 0-911295-55-0. It is a paperback and should be available at most local hobby shops, book stores, and online sources for R/C hobby supplies.

I highly recommend that you add this book to your model flying resource shelf.

The NEAT Fair

The NEAT Fair (Northeast Electric Aircraft Technology Fair) was started by Tom Hunt and the folks from SEFLI (Silent Electric Flyers of Long Island) in 2000. Many of the east coast fliers were saddened by the end of the KRC (Keystone R/C Club) electric meet in 1999. It was the largest gathering of electrically

powered modelers in the US and had about a 20 year history and hundreds of followers.

Tom, along with the other folks at SEFLI, decided to do something about it. They located a suitable site at Downsville, NY. Downsville is located in the central part of NY.

The first year was a huge success with several hundred pilots registered and many vendors. The 2001 meet was even bigger and better with more pilots and vendors.

While there is no direct relationship to the KRC meet, it has risen rapidly to the status of the must attend meet in the east, because many of the followers of the original KRC meets are able to attend.

Tom Hunt, CD, and major promoter of electric flight, is the sparkplug in organizing and promoting this meet. We all owe Tom, and the SEFLI, a huge thanks for keeping the electric flight community together in the east.

To learn more about the NEAT Fair, you can visit the NEAT Fair Web site at: www.neatfair.org

The Upcoming 2002 NEAT Fair

Info from Tom's posts to the eflight list

I'd like to announce that pilot Pre-registration is now available on the NEAT fair website at: www.neatfair.org Please take the time to read all the info on the pre-reg pages, there will be some changes in this years format.

This years "dinner/social" will be on Friday night, not Saturday as last years. We also will be going "indoors" to a restaurant in Roscoe about a 1/2 hour from the field (easy drive). Seating is limited, so get your reservation checks in ASAP. More details are on the site. Dinner tickets for the Friday night dinner are going fast too, so if you plan to attend, get your money in soon.

This leaves Saturday night open for the very first NEAT Fair Saturday Night Slow Flyer contest!!! (weather permitting). Details have not been firmed up, but here is at two of the rules..... model must weigh 16 ounces or less. No passive lights (ground based) can be used to aid in the contest. Only lights on-board the aircraft will be allowed. There is no need to pre-register for this event, just show up at 9 p.m. at the HQ tent.

One thing I can tell you, you will need a model that can turn VERY TIGHTLY to accomplish most of the tasks! Keep an eye out for the formal rules. They should be firmed-up by the end of June. If you have any questions, please direct them to neatfair@optonline.net

Also to be found on the website is a listing of the most "crowded" frequencies at last years show. We still

strongly encourage pilot pre-registration. It will definitely save you time at check-in.

Thanks,

Tom Hunt

Bob Aberle

2002 Event Directors and all Of SEFLI

Receivers for Electric Flight – Some Thoughts

From: Scott Black sblack@progression.net

Hi Ken,

Just reading the July *Ampeer* and saw the bit about receivers. I am NO RADIO EXPERT!!!, however I have been flying electric since 1988 and have had my share of radio problems. Here are a few thoughts that come to mind.

Range problems with electrics are common and are often installation and not necessarily equipment dependant. Good practices are to keep servos and power leads away from the receiver, but this is common knowledge I guess. I once grounded a new plane for two months while I figured out that moving the receiver 1/2" away from the servos fixed everything. I have seen horrible installations (required for cg reasons) where everything was packed in like sardines and it worked fine. I have seen good installations which didn't work. Go figure. I have seen airplanes that worked at one field but had no range at another field.

I don't think (again - no expert, just many years of practical experience) that you can make a blanket statement about any particular equipment. I think you have to work on the installation. I am using the Quantum in my Sabre which is a high power setup (16 cells 40 -50 amps) with the battery in 2 separate sticks on either side of the fuse so it makes a loop - very bad. There is a reduction in range but it is rock solid in the air and I am very happy with it. I have used Hitec 555s a lot and they work great, but the above problem was with one of them i.e. too close to the servos. Perhaps Bob's problems were solvable by other means than swapping receivers.

I have had success with ferrite beads on my projects and have bailed out other guys grounded at fun flies by using them. They work - just wrap the Rx plug on the ESC around it a few times and bingo. Some guys have shielded components with foil, but I have no experience at this.

When you are trouble shooting, pay strict attention to placement of components in the airplane. Move stuff around, swap individual servos as one could be noisy. Range check far away from anything that might affect the signal, such as fences etc. Range check away from

other radios at the field. Who knows, could it even be frequency dependant? Are there guys using old equipment at your club? That has happened to me with my Tetra (single conversion) but it has been rock solid other than that. Ensure that the antenna is clear of the other components and is not pointing at the Tx. Keep trying, be patient, but absolutely do NOT fly until you are satisfied!

Good luck

sb

From: Bernard "Crash" Siegel bjsiegel@texas.net

Ken,

My first R/C airplane was a Zagi 400 (yup, learned to fly with a Zagi). The radio was a JR 421 with a JR 610M receiver. It glitched hopelessly right out of the box (3 motor caps, etc). I went to the field when I knew a lot of people would be there and showed it to them.

Many came forward with all kinds of receivers, some of which could never fly in a Zagi (too BIG). Nothing worked - various FMA, Quantams, Hitec, JR and several no name.

Then an older guy came over with his Zagi, pulled out his receiver, taped it in mine, range tested it, handed me the end of a buddy cord and said, "Let's Fly!"

YEA HA! YES! YES! (mental picture of Megan Ryan in "He said, she said" or whatever).

The next business day I called RC-Direct and ordered 2 Berg-6's. I only had 1 airplane but I bought 2 with extra crystals. I admit to having another JR receivers and a Hitec but they came with the radios. Horizon did eventually replace the JR610M with one that worked.

But all my "good" airplanes have Berg -6's (standard or mini).

I test flew a Berg-6 Mini for Peter and enjoyed the experience and working with Peter immensely. Now Peter has a new digital 5 channel out. And will have a 8 channel out later this year.

When next I need a receiver, guess what it will be. Bernard "Crash" Siegel
San Antonio Prop Buster

S400 in the UP

From: Richard Adams radams@gogebic.net

Hi Ken,

I'm the fellow from the Western U.P. (*that's the upper peninsula of Michigan, for those of you who*

don't know, eh? KM), who invited you, a year or two ago, to visit the world's most beautiful grass strip when you came to your cabin. *(Which I will be doing this year to repair the roof. KM)*

Here are some photos of my first venture into geared Speed 400's. The Tiger Moth has the Graupner motor, Hobby Lobby's 2.3:1 gearbox (Mini-Olympus) and flies very realistically on 6 cells, and is quite zippy on 7 cells. It ROG's off grass, if we have just cut the field. I built it from 1975 plans from RCM, that are still available. It is a design by Walt Mitchell, that was a scaled up from the Tern Aero rubber design, and originally designed to be powered by a TD .020 and controlled by the single channel Ace pulse unit. Mine has 3 channels, uses the Hitec TX and the ir Feather receiver, two tiny servo's, a Jeti 18 speed control, and a Cubed R/C tuned antenna hidden in the fuselage. (I have had not a glitch in 16 flights.) It spans 35 inches and came in at 19.3 ounces all up with a 6 cell 600 mAh battery. It is one of the best flying airplanes I have ever built. Cute and fun!

If anyone is interested in the modifications I made for electric, I would be happy to share them.

Keep up the good work on your website, and the invite is still open!

Dick



Molybdenum Disulfide

From: Gary Baker GaryB@CONNECTISP.com

(Gary was having some issues with XP, Acrobat Reader and getting the Ampeer in PDF format. In an email discussing this problem, he also provided the following information. KM)

If one uses some Molybdenum Disulfide (in an oil base) on stock 05 can motors the motor will spin up 34% faster. I know, you don't want to believe this, but I wrote about this years ago in the EMFSO newsletter and Mitch Poling and I discussed with Mitch doing some empirical study. It showed the above outcome and he published the data in MB several years ago. I live in Canada, Mitch lived in California at the time, and he phoned me after reading the EMFSO article.

If you search the net (using Google let's say) you will learn of other benefits of using Moly. You can purchase vitamins with it in - you have Moly in your body. Check the chemical chart of elements - it is there. I use a variety of products with Moly in it for automobile applications, and some of these auto products lend themselves well with "E" flyers. Keith Shaw recommends using Moly grease on the metal Astro gearbox gears. Try it, you may like it.

Ratby Aeroplanes and Electric Flight

From: Mark Stringer sales@ratbyaeroplanes

Hi,

Mark Stringer of Ratby Aeroplanes here. I believe I already have a link on your pages, but I just wanted to make you aware of my latest range of kits - all ARTF Park Flyers at great prices and I can ship worldwide.

I also promote the FMS Sim which I do a TX to PC Lead for ... take a look at my updated web site for more details.

Ratby Aeroplanes now has a new web site and e-mail address as shown below. Lots of exciting models - especially for the electric modeller.

If you could update my link that would be great, thanks.

Best Regards,

Mark Stringer

Ratby Aeroplanes

NOW AT www.ratbyaeroplanes.com

and our e-mail address is sales@ratbyaeroplanes.com

(Check out what Mark has to offer. I find his gear drives intriguing. KM)

Up Coming Events

Aug. 3 WMAA Electric Fly-in, (Westerville, Ohio, just outside of Columbus), second electric only fun fly, contact Kevin Petrilla petrilla.3@osu.edu Web site: www.wmaa-wags.org

Aug. 10 Fort Wayne Flying Circuits Annual ElectriFly in New Haven, Indiana. 8:00 a.m. - 5:00 p.m. - Fun flying and gabbing, Entrance is \$8.00 a person (less than years before), AMA members only

For anyone interested, I've reserved the Golf Dome in Fort Wayne for Friday August 9th, the night before the meet. We'll have it from 7:30 pm until 10:30 pm, Again, the fee for renting the facility comes out to \$8.00 a person for the night, and the Golf Dome charges \$1.00 for spectators.

Pat Mattes, 9732 Lafayette Center Road, Yoder, IN 46798 or email pat-ingrid-mattes@juno.com

August 17 - George Ball Memorial Electric Fun Fly - Southern Ontario, location and directions available online at www.enfso.org

August 24 Watts Over Jackson Electric Fly II - Jackson R/C Club, flying field at the corner of Dalton and McGill Roads, Jackson, MI Contact: Jack Sowle 517.522.4708 or email: oldmaicomman@aol.com

August 24 Propstoppers Electric Fun Fly, Delaware County, Pennsylvania, just south of Philadelphia. Easily accessed from I95.

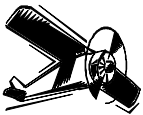
Details will be posted as they develop at www.propstoppers.org
Dave Harding, 610-872-1457 davejean1@comcast.net

Sept. 7 & 8 E-FLI-OWA, Seven Cities Sod Farm - Junction of I-80 and Iowa 130 - details and map at www.rc-dymond.com/efliowa - information: Jon McVay phone: 319-895-6527 or Togflier@AOL.com

Sept. 9 Ron Kirk Memorial Electric Fun Fly, presented by the Clarence Sailplane Society of Western New York - Held at the Erie Community College South Campus, contact: Lyn Perry (716) 655-0775 or e-mail Lyn

Sept. 13, 14 & 15 NEAT Fair, Downsville, NY - NY Tom Hunt CD www.neatfair.org, or email for info neatfair@optonline.net

Oct. 5 & 6 DEAF 16th Annual Annual DEAF Fly, Dallas, TX Sponsored by the Dallas Electric Aircraft Fliers at the Dallas R/C Club Field, Seagoville, TX. A \$20 Landing Fee covers Fun Flying and All Events for the entire weekend, including a Barbeque Dinner on Saturday night. AMA License Required. Contest Fliers will have frequency priority over Fun Fliers. Awards for all events. Food and Drink Concession provided by a local Scout Troop. Free, toothsome DEAF Brownies! Electric R/C Vendors will have their wares on hand. Contact: Jim Truitt, CD, 1618 Mapleton, Dallas, TX 75228, (214) 327-4441 or email: JTr8436ama@aol.com or [Click Here for Flyer](#)



The Ampeer/Ken Myers
1911 Bradshaw Ct.
Walled Lake, MI 48390
<http://members.aol.com/KMyersEFO>

The Next Meeting:

Date: Sunday, Aug. 11 **Time:** 10:00 a.m.

Place: Midwest R/C Flying Field, 5 Mi. Rd.
Northville Twp., MI – between Ridge & Naiper